

**MEMORANDUM**

To: **STACK TEST FILE - WASATCH ENERGY SYSTEMS (WES)**

Through: Jeff Dean, Compliance Manager

From: Harold Burge, Environmental Scientist

Date: 12/2/2002

Subject: Company: WES  
 Tester: Air Pollution Testing  
 Location: 650 E. HWY 193, Layton, Davis Co., Utah  
**Sources: Units A & B**  
 AIRS #: 01100033  
 Permit #: 1100033001 dated 10/29/2002  
 Action Code: 3A  
 Subject: **Review of Stack Test Report dated 11/14/2002**

**FINDINGS:**

- 1) On 11/15/2002 DAQ received the WES report for stack testing performed on 9/10-12/2002. The tests were performed on Units A & B to demonstrate compliance with the emission limits found in Permit Condition II.B.2.h. The DAQ-calculated test results are:

<b>Pollutant</b>	<b>Unit A Result</b>	<b>Unit B Result</b>	<b>Limit</b>
dioxin/furan	0.8 ng/dscm @ 7% O <sub>2</sub>	1.6 ng/dscm @ 7% O <sub>2</sub>	60 ng/dscm @ 7% O <sub>2</sub>
Cd	0.0036 mg/dscm @ 7% O <sub>2</sub>	0.0018 mg/dscm @ 7% O <sub>2</sub>	0.040 mg/dscm @ 7% O <sub>2</sub>
Pb	0.0579 mg/dscm @ 7% O <sub>2</sub>	0.0202 mg/dscm @ 7% O <sub>2</sub>	0.490 mg/dscm @ 7% O <sub>2</sub>
Hg	0.0075 mg/dscm @ 7% O <sub>2</sub>	0.0045 mg/dscm @ 7% O <sub>2</sub>	0.080 mg/dscm @ 7% O <sub>2</sub>
PM	2.3 mg/dscm @ 7% O <sub>2</sub>	1.1 mg/dscm @ 7% O <sub>2</sub>	27 mg/dscm @ 7% O <sub>2</sub>
HCl	17.4 ppm <sub>dv</sub> @ 7% O <sub>2</sub>	12.6 ppm <sub>dv</sub> @ 7% O <sub>2</sub>	31 ppm <sub>dv</sub> @ 7% O <sub>2</sub>

- 2) At the time of testing, operating parameters were as follows:

<b>Parameter</b>	<b>Unit A</b>	<b>Unit B</b>
Avg. steam production	51.0 KPPH	52.4 KPPH
Avg. precipitator inlet temp.	302.0 F	298.4 F
Avg. carbon injection rate	4.0 lb/hr	4.0 lb/hr

**DEVIATIONS:** No deviations were noted.

**CONCLUSION:** At the time of testing, emissions from Units A & B appeared to be within limits.

**RECOMMENDATION:** No further action necessary at this time.